

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

---

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

---

Ex parte HIDEO WATANABE, YASUMASA SHIMIZU, and AKIRA KAWATA

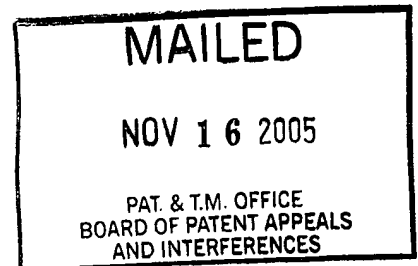
---

Appeal No. 2005-1652  
Application No. 09/667,301

---

HEARD: Oct. 19, 2005

---



Before NASE, CRAWFORD, and BAHR, Administrative Patent Judges.

CRAWFORD, Administrative Patent Judge.

**DECISION ON APPEAL**

This is a decision on appeal from the examiner's final rejection of claims 1, 6 to 12 and 14 to 18, which are all of the claims pending in this application. Claims 2 to 5 and 13 have been cancelled.

### BACKGROUND

The appellants' invention relates to a golf ball having a multilayer construction comprising a solid core, a mantle enclosing the core and a cover enclosing the mantle (specification, p. 2). A copy of the claims under appeal is set forth in the appendix to the appellants' brief.

### The Prior Art Reference

The prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Higuchi

JP 11-253578

Sep. 21, 1999

### The Rejection

Claims 1, 6 to 12 and 14 to 18 stand rejected under 35 U.S.C. § 103 as being unpatentable over Higuchi.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the answer (mailed March 10, 2005) for the examiner's complete reasoning in support of the rejection, and to the brief (filed December 6, 2004) and reply brief (filed May 10, 2005) for the appellants' arguments thereagainst.

### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art reference, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

The examiner finds that Higuchi describes the invention substantially as claimed (see answer at pages 4 to 5). In regard to the recitation that the compression ratio of the mantle compression to the core compression is at least 0.98, the examiner finds that Higuchi describes a mantle compression of from 3.2 to 5.2 mm and a core compression of from 3.2 to 5.2 mm and concludes:

One of ordinary skill in the art would have found it obvious to have a ratio between the compression of the core and intermediate layer of any value, in particular approximately 1, as taught by Higuchi et al., in order to obtain a golf ball having a good feel and flight distance [answer at page 5].

Appellants argue that Higuchi does not describe a mantle made of a material composed primarily of a thermoplastic elastomer selected from the group consisting of polyester, polyimide, polyolefin and polystyrene as required by claim 1.

The examiner argues that since the mantle described in Higuchi is composed of polyurethane which contains a polyester system polyol, it is made of a material composed of a thermoplastic elastomer selected from the group consisting of polyester,


polyamide, polyolefin and polystyrene. The specific section of the Higuchi reference relied on by the examiner is on page 3 of the translation and states:

. . . the interlayer of this invention golf ball is formed considering a polyurethane system resin as main material. In this case, as a polyurethane system resin, a thermoplastic polyurethane elastomer is suitable. Here, what the molecular structure becomes from the soft segment which consists of a macromolecule polyol compound, the single chain extension agent which constitutes a hard segment, and diisocyanate can be used for a thermoplastic polyurethane elastomer. Especially as a macromolecule polyol compound, it is not restricted, but any of a polyester system polyol . . .

The examiner also directs our attention to a disclosure in the Higuchi reference that polyester may be added to the polyurethane material which forms the intermediate or mantle layer (paragraph 0028).

We will not sustain this rejection. Higuchi discloses that the mantle is comprised of a polyurethane thermoplastic elastomer which is made using several constituents including polyester polyol. Higuchi does not disclose that the mantle itself is formed of polyester polyol. In addition, although Higuchi discloses that the polyurethane material used to form the mantle layer may have polyester added thereto, such is not a teaching that the material that forms the mantle layer is composed primarily of polyester.

REVERSED

  
JENNIFER D. BAHR  
Administrative Patent Judge

BOARD OF PATENT  
APPEALS  
AND  
INTERFERENCES

Appeal No. 2005-1652  
Application No. 09/667,301

Page 6

Sughrue Mion Zinn Macpeak & Seas  
2100 Pennsylvania Avenue N.W.  
Washington, DC 20037-3202

MEC/tdl